

Each such program may be implemented in a high level procedural or object-oriented programming language to communicate with a computer system. However, the programs can be implemented in assembly or machine language. The language may be a compiled or an interpreted language.

5 Each computer program may be stored on an article of manufacture, such as a storage medium or device (e.g., CD-ROM (compact disc read-only memory), hard disk, or magnetic diskette), that is readable by a general or special purpose programmable machine for configuring and operating the machine when the storage medium or device is read by the machine to perform process 10. Process 10 may also be implemented as a machine-
10 readable storage medium, configured with a computer program, where, upon execution, instructions in the program cause the machine to operate in accordance with process 10.

The invention is not limited to the specific embodiments described herein. For example, the invention can be used with multiple applications, not just the two L and H applications described above. The invention is not limited to use with ATM cells or to use
15 with ATM networks. Any type of data unit or data packet may be used. The invention is not limited to use with the hardware and software described herein or to use in a B-ISDN context, but rather may be applied to any type of network. The invention is particularly applicable to real-time applications, such as voice and video interactive communications; however, it may be used with any type of computer application.

20 Other embodiments not specifically described herein are also within the scope of the following claims.

What is claimed is:

1. A method of serving data units on a network, comprising:
 queuing data units from a first application in a first buffer;
 queuing data units from a second application in a second buffer;
 moving data units from the second buffer to the first buffer following a
 5 predetermined delay; and
 serving data units from the first buffer.

2. The method of claim 1, wherein the data units from the first application have a
 higher priority for transmission on the network than the data units from the second
 10 application.

3. The method of claim 1, wherein the data units from the first application and the
 data units from the second application are served from the first buffer on a first-come-
 first-served basis.

4. The method of claim 1, further comprising:
 discarding data units from the first application that exceed a first time delay; and
 discarding data units from the second application that exceed a second time delay.

5. The method of claim 4, wherein the second time delay exceeds the
 predetermined time delay.

6. The method of claim 1, wherein the data units from the second buffer are
 moved to an end of the first buffer after data units from the first application.

7. The method of claim 1, further comprising:
 determining a time to move the data units from the second buffer to the first
 buffer.

8. The method of claim 7, wherein a circular buffer, a pointer and a timer are used
 to determine the time to move the data units from the second buffer to the first buffer.

9. The method of claim 1, further comprising:

serving data units from the second buffer when the first buffer is empty.

5 10. The method of claim 1, wherein the data units comprise Asynchronous Transfer Mode (ATM) cells and the network comprises an ATM network.

11. A computer program stored on a computer-readable medium for serving data units on a network, the computer program comprising instructions to:

10 queue data units from a first application in a first buffer;
 queue data units from a second application in a second buffer;
 move data units from the second buffer to the first buffer following a
predetermined delay; and
 serve data units from the first buffer.

15 12. The computer program of claim 11, wherein the data units from the first application have a higher priority for transmission on the network than the data units from the second application.

20 13. The computer program of claim 11, wherein the data units from the first application and the data units from the second application are served from the first buffer on a first-come-first-served basis.

14. The computer program of claim 11, further comprising instructions to:

25 discard data units from the first application that exceed a first time delay; and
 discard data units from the second application that exceed a second time delay.

15. The computer program of claim 14, wherein the second time delay exceeds the predetermined time delay.

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16. The computer program of claim 11, wherein the data units from the second buffer are moved to an end of the first buffer after data units from the first application.

17. The computer program of claim 11, further comprising instructions to:
determine a time to move the data units from the second buffer to the first buffer.

18. The computer program of claim 17, wherein a circular buffer, a pointer and a timer are used to determine the time to move the data units from the second buffer to the first buffer.

19. The computer program of claim 11, further comprising instructions to:
serve data units from the second buffer when the first buffer is empty.

20. The computer program of claim 11, wherein the data units comprise
Asynchronous Transfer Mode (ATM) cells and the network comprises an ATM network.

21. An apparatus for serving data units on a network, comprising:
a first buffer to queue data units from a first application;
a second buffer to queue data units from a second application; and
a controller to (i) move data units from the second buffer to the first buffer
following a predetermined delay, and (ii) serve data units from the first buffer.

22. The apparatus of claim 21, wherein the data units from the first application
have a higher priority for transmission on the network than the data units from the second
application.

23. The apparatus of claim 21, wherein the data units from the first application
and the data units from the second application are served from the first buffer on a first-
come-first-served basis.

24. The apparatus of claim 21, wherein the controller discards data units from the first application that exceed a first time delay, and discards data units from the second application that exceed a second time delay.

5 25. The apparatus of claim 24, wherein the second time delay exceeds the predetermined time delay.

26. The apparatus of claim 21, wherein the data units from the second buffer are moved to an end of the first buffer after data units from the first application.

10 27. The apparatus of claim 21, wherein the controller determines a time to move the data units from the second buffer to the first buffer.

15 28. The apparatus of claim 27, wherein the controller uses a circular buffer, a pointer and a timer to determine the time to move the data units from the second buffer to the first buffer.

20 29. The apparatus of claim 21, wherein the controller serves data units from the second buffer when the first buffer is empty.

30. The apparatus of claim 21, wherein the data units comprise Asynchronous Transfer Mode (ATM) cells and the network comprises an ATM network.